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 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2  Apr 08   "Ask CAS" for self-help around the clock
 NEWS  3  Apr 09   BEILSTEIN: Reload and Implementation of a New Subject Area
 NEWS  4  Apr 09   ZDB will be removed from STN
 NEWS  5  Apr 19   US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
 NEWS  6  Apr 22   Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
 NEWS  7  Apr 22   BIOSIS Gene Names now available in TOXCENTER
 NEWS  8  Apr 22   Federal Research in Progress (FEDRIP) now available
 NEWS  9  Jun 03   New e-mail delivery for search results now available
 NEWS 10  Jun 10   MEDLINE Reload
 NEWS 11  Jun 10   PCTFULL has been reloaded
 NEWS 12  Jul 02   FOREGE no longer contains STANDARDS file segment
 NEWS 13  Jul 22   USAN to be reloaded July 28, 2002;
                   saved answer sets no longer valid
 NEWS 14  Jul 29   Enhanced polymer searching in REGISTRY
 NEWS 15  Jul 30   NETFIRST to be removed from STN
 NEWS 16  Aug 08   CANCERLIT reload
 NEWS 17  Aug 08   PHARMAMarketLetter(PHARMAML) - new on STN
 NEWS 18  Aug 08   NTIS has been reloaded and enhanced
 NEWS 19  Aug 09   JAPIO to be reloaded August 25, 2002
 NEWS 20  Aug 19   Aquatic Toxicity Information Retrieval (AQUIRE)
                   now available on STN
 NEWS 21  Aug 19   IFIPAT, IFICDB, and IFIUDB have been reloaded
 NEWS 22  Aug 19   The MEDLINE file segment of TOXCENTER has been reloaded

 NEWS EXPRESS  February 1 CURRENT WINDOWS VERSION IS V6.0d,
               CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
               AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
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FILE 'HOME' ENTERED AT 07:17:09 ON 26 AUG 2002
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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.42       0.42

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STRUCTURE FILE UPDATES:   25 AUG 2002  HIGHEST RN 444874-82-2
DICTIONARY FILE UPDATES:  25 AUG 2002  HIGHEST RN 444874-82-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Calculated physical property data is now available.  See HELP PROPERTIES
for more information.  See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> e chiconic
E1            3     CHICOL/BI
E2           11     CHICONE/BI
E3            0 --> CHICONIC/BI
E4            3     CHICONQUIACO/BI
E5            3     CHICORIC/BI
E6           11     CHICORY/BI
E7           17     CHICOS/BI
E8           17     CHICOSAMIDE/BI
E9           19     CHICOSIDE/BI
E10          28     CHICUM/BI
E11          69     CHICUS/BI
E12           9     CHID/BI

=> e chicoric
E1           11     CHICONE/BI
E2            3     CHICONQUIACO/BI
E3            3 --> CHICORIC/BI
E4           11     CHICORY/BI
E5           17     CHICOS/BI
E6           17     CHICOSAMIDE/BI
E7           19     CHICOSIDE/BI
E8           28     CHICUM/BI
E9           69     CHICUS/BI
E10           9     CHID/BI
E11           1     CHID931/BI
E12           1     CHID943/BI

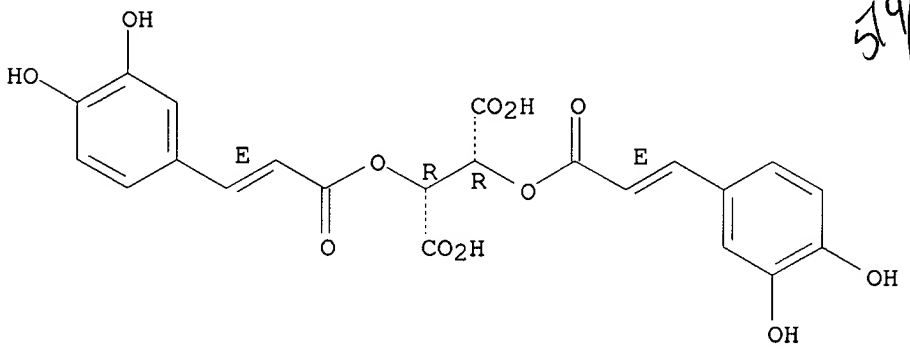
=> s e3
L1            3 CHICORIC/BI

=> d l1 1-3

L1   ANSWER 1 OF 3  REGISTRY  COPYRIGHT 2002 ACS
RN   70831-56-0  REGISTRY
CN   Butanedioic acid, 2,3-bis[[(2E)-3-(3,4-dihydroxyphenyl)-1-oxo-2-
     propenyl]oxy]-, (2R,3R)- (9CI)  (CA INDEX NAME)
```

OTHER CA INDEX NAMES:
CN Butanedioic acid, 2,3-bis[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-, [R-[R*,R*-(E,E)]]-
OTHER NAMES:
CN **(-)-Chicoric acid**
CN **(-)-L-Chicoric acid**
CN **Chicoric acid, (-)-**
CN **l-Chicoric acid**
CN NSC 99173
FS STEREOSEARCH
MF C22 H18 O12
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, MEDLINE, TOXCENTER
(*File contains numerically searchable property data)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



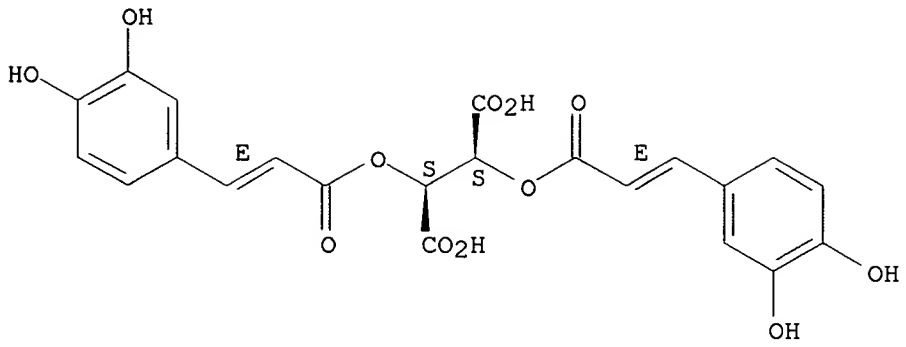
514/333 514/371

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20 REFERENCES IN FILE CA (1967 TO DATE)
20 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2002 ACS
RN 52248-48-3 REGISTRY
CN Butanedioic acid, 2,3-bis[[(2E)-3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-, (2S,3S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butanedioic acid, 2,3-bis[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-, [S-[R*,R*-(E,E)]]-
OTHER NAMES:
CN **(+)-D-Chicoric acid**
CN NSC 699176
FS STEREOSEARCH
MF C22 H18 O12
LC STN Files: BEILSTEIN*, CA, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.

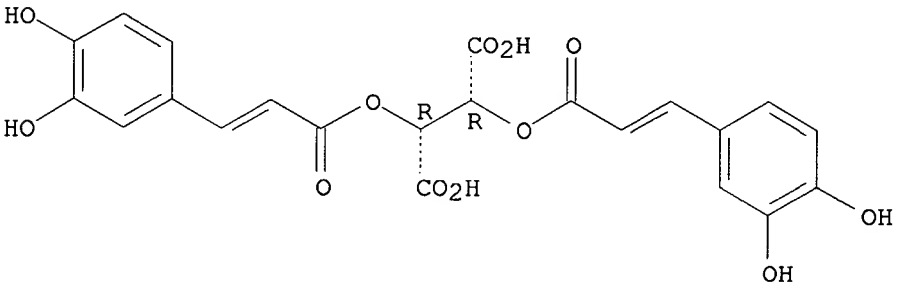


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1967 TO DATE)
6 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2002 ACS
RN 6537-80-0 REGISTRY
CN Butanedioic acid, 2,3-bis[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-, (2R,3R)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butanedioic acid, 2,3-bis[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-, [R-(R*,R*)]-
CN Tartaric acid, bis(3,4-dihydroxycinnamate) (6CI, 8CI)
OTHER NAMES:
CN **Chicoric acid**
CN Cichoric acid
CN Dicaffeoyltartaric acid
FS STEREOSEARCH
DR 135541-38-7
MF C22 H18 O12
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CEN, CHEMCATS, CSCHEM, DDFU, DRUGU, EMBASE, IPA, NAPRALERT, PIRA, PROMT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry unknown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

89 REFERENCES IN FILE CA (1967 TO DATE)
89 REFERENCES IN FILE CAPLUS (1967 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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=> file caplus
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                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       9.88      10.30

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FILE COVERS 1907 - 26 Aug 2002  VOL 137 ISS 9
FILE LAST UPDATED: 25 Aug 2002  (20020825/ED)

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information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

=> d his

     (FILE 'HOME' ENTERED AT 07:17:09 ON 26 AUG 2002)

     FILE 'REGISTRY' ENTERED AT 07:18:01 ON 26 AUG 2002
               E CHICONIC
               E CHICORIC
L1           3 S E3

     FILE 'CAPLUS' ENTERED AT 07:19:33 ON 26 AUG 2002

=> s viral or antiviral or hiv or retroviral
        108359 VIRAL
         35620 ANTIVIRAL
         45090 HIV
         12380 RETROVIRAL
L2      168635 VIRAL OR ANTIVIRAL OR HIV OR RETROVIRAL

=> s l1
L3         109 L1

=> s l3 and l2
L4          26 L3 AND L2

=> d l4 1-26

L4   ANSWER 1 OF 26  CAPLUS  COPYRIGHT 2002 ACS
```

AN 2002:182181 CAPLUS
DN 136:226770
TI Antimicrobial treatment for herpes simplex virus and other infectious diseases
IN Squires, Meryl
PA Squires, Meryl J., USA
SO U.S., 14 pp., Cont.-in-part of U.S. 600,217.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6355684	B1	20020312	US 1996-646988	19960508
	US 6348503	B1	20020219	US 1996-600217	19960212
	CA 2253736	AA	19980326	CA 1997-2253736	19970312
	WO 9811778	A1	19980326	WO 1997-US2468	19970312
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9737153	A1	19980414	AU 1997-37153	19970312
	AU 716247	B2	20000224		
	EP 918458	A1	19990602	EP 1997-933985	19970312
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9711086	A	20000111	BR 1997-11086	19970312
	JP 2001505546	T2	20010424	JP 1998-514630	19970312
	US 6350784	B1	20020226	US 1997-824041	19970326
	NO 9805200	A	19990108	NO 1998-5200	19981106
	KR 2000010847	A	20000225	KR 1998-708990	19981107
PRAI	US 1990-595424	B1	19901011		
	US 1996-600217	A2	19960212		
	US 1996-646988	A	19960508		
	WO 1997-US2468	W	19970312		

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 2002:151541 CAPLUS
DN 136:194229
TI Antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases
IN Squires, Meryl J.
PA USA
SO U.S., 29 pp., Cont.-in-part of U.S. Ser. No. 646,988.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6350784	B1	20020226	US 1997-824041	19970326
	US 6348503	B1	20020219	US 1996-600217	19960212
	US 6355684	B1	20020312	US 1996-646988	19960508
	WO 9842188	A1	19981001	WO 1998-US5792	19980324
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,				

KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

	AU 9867718	A1	19981020	AU 1998-67718	19980324
	AU 727339	B2	20001207		
	BR 9807892	A	20000222	BR 1998-7892	19980324
	EP 980203	A1	20000223	EP 1998-913086	19980324
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2000119188	A2	20000425	JP 1999-315917	19980324
	JP 2001527541	T2	20011225	JP 1998-545926	19980324
	NO 9904639	A	19991124	NO 1999-4639	19990924
PRAI	US 1996-600217	A2	19960212		
	US 1996-646988	A2	19960508		
	US 1990-595424	B1	19901011		
	US 1997-824041	A	19970326		
	JP 1998-545926	A3	19980324		
	WO 1998-US5792	W	19980324		

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 2001:427122 CAPLUS
DN 136:145835
TI Natural selection results in conservation of **HIV**-1 integrase activity despite sequence variability
AU Reinke, Ryan; Steffen, Nicholas R.; Robinson, W. Edward, Jr.
CS Departments of Microbiology, University of California, Irvine, CA, 92967-4800, USA
SO AIDS (London, United Kingdom) (2001), 15(7), 823-830
CODEN: AIDSET; ISSN: 0269-9370
PB Lippincott Williams & Wilkins
DT Journal
LA English
RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 2001:426017 CAPLUS
DN 135:282659
TI Dicaffeoyl- or digalloyl pyrrolidine and furan derivatives as **HIV** integrase inhibitors
AU Hwang, D. J.; Kim, S. N.; Choi, J. H.; Lee, Y. S.
CS Division of Life Sciences, Korea Institute of Science & Technology, Cheongryang, Seoul, 130-650, S. Korea
SO Bioorganic & Medicinal Chemistry (2001), 9(6), 1429-1437
CODEN: BMECEP; ISSN: 0968-0896
PB Elsevier Science Ltd.
DT Journal
LA English
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 2001:77935 CAPLUS
DN 137:56993
TI **Viral** entry as the primary target for the anti-**HIV** activity of chicoric acid and its tetraacetyl esters. [Erratum to document cited in CA133:290695]

AU Pluymers, Wim; Neamati, Nouri; Pannecouque, Christophe; Fikkert, Valery; Marchand, Christophe; Burke, Terrence R., Jr.; Pommier, Yves; Schols, Dominique; De Clercq, Erik; Debser, Zeger; Witvrouw, Myriam
CS Rega Institute for Medical Research, K. U. Leuven, Louvain, Belg.
SO Molecular Pharmacology (2001), 59(2), 403
CODEN: MOPMA3; ISSN: 0026-895X
PB American Society for Pharmacology and Experimental Therapeutics
DT Journal
LA English

L4 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 2000:756659 CAPLUS
DN 133:296199
TI Preparation of acetylated and related analogs of chicoric acid as **HIV** integrase inhibitors
IN Burke, Terrence R.; Zhaiwei, Lin; Zhao, He; Neamati, Nouri; Pommier, Yves
PA Government of the United States of America as Represented by the Secretary, USA
SO PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000063152	A1	20001026	WO 2000-US4608	20000222

W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1999-121127P P 19990222
OS MARPAT 133:296199
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 2000:720699 CAPLUS
DN 134:36723
TI Active site binding modes of **HIV**-1 integrase inhibitors
AU Sotriffer, Christoph A.; Ni, Haihong; McCammon, J. Andrew
CS Departments of Chemistry and Biochemistry and of Pharmacology Howard Hughes Medical Institute, University of California, La Jolla, CA, 92093-0365, USA
SO Journal of Medicinal Chemistry (2000), 43(22), 4109-4117
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 2000:614976 CAPLUS
DN 133:290695
TI **Viral** entry as the primary target for the anti-**HIV** activity of chicoric acid and its tetra-acetyl esters
AU Pluymers, Wim; Neamati, Nouri; Pannecouque, Christophe; Fikkert, Valery;

Marchand, Christophe; Burke, Terrence R., Jr.; Pommier, Yves; Schols, Dominique; De Clercq, Erik; Debyser, Zeger; Witvrouw, Myriam
CS Rega Institute for Medical Research, K. U. Leuven, Louvain, Belg.
SO Molecular Pharmacology (2000), 58(3), 641-648
CODEN: MOPMA3; ISSN: 0026-895X
PB American Society for Pharmacology and Experimental Therapeutics
DT Journal
LA English
RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 2000:565900 CAPLUS
DN 133:322054
TI Synthesis and **HIV**-1 integrase inhibitory activities of caffeoylglucosides
AU Kim, S. N.; Lee, J. Y.; Kim, H. J.; Shin, C.-G.; Park, H.; Lee, Y. S.
CS Division of Life Sciences, Korea Institute of Science and Technology, Cheongryang, Seoul, 130-650, S. Korea
SO Bioorganic & Medicinal Chemistry Letters (2000), 10(16), 1879-1882
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 133:322054
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 2000:410016 CAPLUS
DN 133:171798
TI Combinations of reverse transcriptase, protease, and integrase inhibitors can be synergistic in vitro against drug-sensitive and RT inhibitor-resistant molecular clones of **HIV**-1
AU Beale, K. K.; Robinson, W. E.
CS Department of Microbiology and Molecular Genetics, University of California, Irvine, CA, 92697-4025, USA
SO Antiviral Research (2000), 46(3), 223-232
CODEN: ARSRDR; ISSN: 0166-3542
PB Elsevier Science B.V.
DT Journal
LA English
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 2000:304993 CAPLUS
DN 133:114586
TI Developing a Dynamic Pharmacophore Model for **HIV**-1 Integrase
AU Carlson, Heather A.; Masukawa, Kevin M.; Rubins, Kathleen; Bushman, Fredric D.; Jorgensen, William L.; Lins, Roberto D.; Briggs, James M.; McCammon, J. Andrew
CS Department of Chemistry and Biochemistry and Department of Pharmacology, University of California San Diego, La Jolla, CA, 92093-0365, USA
SO Journal of Medicinal Chemistry (2000), 43(11), 2100-2114
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
RE.CNT 84 THERE ARE 84 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1999:625998 CAPLUS
DN 131:252543
TI **HIV** integrase inhibitors and **HIV** therapy based on drug combinations including integrase inhibitors
IN Robinson, W. Edward, Jr.; King, Peter J.; Reinecke, Manfred G.
PA The Regents of the University of California, USA
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9948371	A1	19990930	WO 1999-US6700	19990326
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9933668	A1	19991018	AU 1999-33668	19990326
	EP 1063888	A1	20010103	EP 1999-915065	19990326
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1998-79764P	P	19980327		
	US 1998-93208P	P	19980717		
	WO 1999-US6700	W	19990326		

OS MARPAT 131:252543
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1999:619821 CAPLUS
DN 132:109
TI Method for Including the Dynamic Fluctuations of a Protein in Computer-Aided Drug Design
AU Carlson, Heather A.; Masukawa, Kevin M.; McCammon, J. Andrew
CS Department of Chemistry and Biochemistry Department of Pharmacology, University of California San Diego, La Jolla, CA, 92093-0365, USA
SO Journal of Physical Chemistry A (1999), 103(49), 10213-10219
CODEN: JPCAFH; ISSN: 1089-5639
PB American Chemical Society
DT Journal
LA English
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1999:286154 CAPLUS
DN 130:316594
TI Pharmaceutical grade Echinacea
IN Khwaja, Tasneem A.; Friedman, Elliot P.
PA Pharmaprint, Inc., USA; University of Southern California
SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9921007	A1	19990429	WO 1998-US22507	19981023
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2307614	AA	19990429	CA 1998-2307614	19981023
	AU 9913634	A1	19990510	AU 1999-13634	19981023
	EP 1025441	A1	20000809	EP 1998-957358	19981023
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1997-956603	A2	19971023		
	WO 1998-US22507	W	19981023		

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1999:222724 CAPLUS
DN 131:39206
TI Chicoric Acid Analogs as **HIV**-1 Integrase Inhibitors
AU Lin, Zhaiwei; Neamati, Nouri; Zhao, He; Kiryu, Yoshimitsu; Turpin, Jim A.; Aberham, Claudia; Strebel, Klaus; Kohn, Kurt; Witvrouw, Myriam; Pannecouque, Christophe; Debyser, Zeger; De Clercq, Erik; Rice, William G.; Pommier, Yves; Burke, Terrence R., Jr.
CS Laboratory of Medicinal Chemistry Division of Basic Sciences, National Cancer Institute, Bethesda, MD, 20892, USA
SO Journal of Medicinal Chemistry (1999), 42(8), 1401-1414
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1999:198481 CAPLUS
DN 131:13413
TI Irreversible inhibition of human immunodeficiency virus type 1 integrase by dicaffeoylquinic acids
AU Zhu, Kai; Cordeiro, Mara L.; Atienza, Jocelyn; Robinson, W. Edward, Jr.; Chow, Samson A.
CS Department of Molecular and Medical Pharmacology, UCLA School of Medicine, Los Angeles, CA, 90095, USA
SO Journal of Virology (1999), 73(4), 3309-3316
CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English
RE.CNT 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1999:59442 CAPLUS
DN 130:261460
TI Structure-Activity Relationships: Analogs of the Dicaffeoylquinic and Dicaffeoyltartaric Acids as Potent Inhibitors of Human Immunodeficiency Virus Type 1 Integrase and Replication

AU King, Peter J.; Ma, Guoxiang; Miao, Wenfang; Jia, Qi; McDougall, Brenda R.; Reinecke, Manfred G.; Cornell, Chris; Kuan, Jean; Kim, Tracey R.; Robinson, W. Edward,Jr.
CS Department of Microbiology and Molecular Genetics, University of California, Irvine, CA, 92697-4800, USA
SO Journal of Medicinal Chemistry (1999), 42(3), 497-509
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1998:661494 CAPLUS
DN 129:298375
TI Antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases
IN Squires, Meryl
PA USA
SO PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9842188	A1	19981001	WO 1998-US5792	19980324
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6350784	B1	20020226	US 1997-824041	19970326
	AU 9867718	A1	19981020	AU 1998-67718	19980324
	AU 727339	B2	20001207		
	BR 9807892	A	20000222	BR 1998-7892	19980324
	EP 980203	A1	20000223	EP 1998-913086	19980324
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001527541	T2	20011225	JP 1998-545926	19980324
	NO 9904639	A	19991124	NO 1999-4639	19990924
PRAI	US 1997-824041	A	19970326		
	US 1996-600217	A2	19960212		
	US 1996-646988	A2	19960508		
	WO 1998-US5792	W	19980324		

L4 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1998:623470 CAPLUS
DN 130:60611
TI L-Chicoric acid, an inhibitor of human immunodeficiency virus type 1 (**HIV**-1) integrase, improves on the in vitro anti-**HIV**-1 effect of Zidovudine plus a protease inhibitor (AG1350)
AU Edward Robinson, W.
CS D440 Med Sci I, Departments of Pathology and Microbiology and Molecular Genetics, University of California, Irvine, CA, 92697-4800, USA
SO Antiviral Research (1998), 39(2), 101-111
CODEN: ARSRDR; ISSN: 0166-3542
PB Elsevier Science B.V.

DT Journal
LA English
RE.CNT 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1998:620304 CAPLUS
DN 129:325768
TI Resistance to the anti-human immunodeficiency virus type 1 compound L-chicoric acid results from a single mutation at amino acid 140 of integrase
AU King, Peter J.; Robinson, E. Edward, Jr.
CS Departments of Microbiology and Molecular Genetics, University of California, Irvine, CA, 92697, USA
SO Journal of Virology (1998), 72(10), 8420-8424
CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English

L4 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1998:601918 CAPLUS
DN 129:310451
TI Human immunodeficiency virus type 1 cDNA integration: new aromatic hydroxylated inhibitors and studies of the inhibition mechanism
AU Farnet, C. M.; Wang, B.; Hansen, M.; Lipford, J. R.; Zalkow, L.; Robinson, W. E., Jr.; Siegel, J.; Bushman, F.
CS Salk Institute for Biological Studies, La Jolla, CA, 92037, USA
SO Antimicrobial Agents and Chemotherapy (1998), 42(9), 2245-2253
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English

L4 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1998:197364 CAPLUS
DN 128:266235
TI Antimicrobial treatment for herpes simplex virus and other infectious diseases
IN Squires, Meryl
PA Squires, Meryl, USA
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9811778	A1	19980326	WO 1997-US2468	19970312
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6355684	B1	20020312	US 1996-646988	19960508
AU 9737153	A1	19980414	AU 1997-37153	19970312
AU 716247	B2	20000224		
EP 918458	A1	19990602	EP 1997-933985	19970312
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO

	CN 1223546	A	19990721	CN 1997-195836	19970312
	BR 9711086	A	20000111	BR 1997-11086	19970312
	JP 2001505546	T2	20010424	JP 1998-514630	19970312
	NO 9805200	A	19990108	NO 1998-5200	19981106
PRAI	US 1996-646988	A	19960508		
	US 1990-595424	B1	19901011		
	US 1996-600217	A2	19960212		
	WO 1997-US2468	W	19970312		

L4 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1998:24769 CAPLUS
DN 128:149231
TI Dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of human immunodeficiency virus type 1 integrase
AU Mcdougall, Brenda; King, Peter J.; Wu, Bor Wen; Hostomsky, Zdenek; Reinecke, Manfred G.; Robinson, W. Edward, Jr.
CS Department of Pathology, University of California, Irvine, CA, 92697-4800, USA
SO Antimicrobial Agents and Chemotherapy (1998), 42(1), 140-146
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English

L4 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1996:393062 CAPLUS
DN 125:104334
TI Inhibitors of **HIV**-1 replication that inhibit **HIV** integrase
AU Robinson, W. Edward, Jr.; Reinecke, Manfred G.; Abdel-Malek, Samia; Jia, Qi; Chow, Samson A.
CS Department Pathology Microbiology Molecular Genetics, University California, Irvine, CA, 92717, USA
SO Proceedings of the National Academy of Sciences of the United States of America (1996), 93(13), 6326-6331
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English

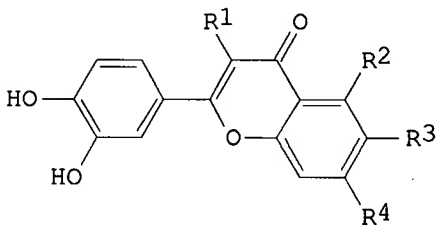
L4 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1989:4651 CAPLUS
DN 110:4651
TI Caffeoyl conjugates from Echinacea species: structures and biological activity
AU Cheminat, Annie; Zawatzky, Rainer; Becker, Hans; Brouillard, Raymond
CS Lab. Chim. Pigments des Plantes, Inst. Chim., Strasbourg, 67008, Fr.
SO Phytochemistry (1988), 27(9), 2787-94
CODEN: PYTCAS; ISSN: 0031-9422
DT Journal
LA English

L4 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1986:101952 CAPLUS
DN 104:101952
TI The caffeoylics as a new family of natural **antiviral** compounds
AU Koenig, B. K.; Dustmann, J. H.
CS Niedersaechsisches Landesinst. Bienenforsch., Celle, D-3100, Fed. Rep. Ger.
SO Naturwissenschaften (1985), 72(12), 659-61
CODEN: NATWAY; ISSN: 0028-1042

DT Journal
LA English

=> d 14 26 24 23 21 20 19 18 all

L4 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1986:101952 CAPLUS
DN 104:101952
TI The caffeoylics as a new family of natural **antiviral** compounds
AU Koenig, B. K.; Dustmann, J. H.
CS Niedersaechsisches Landesinst. Bienenforsch., Celle, D-3100, Fed. Rep. Ger.
SO Naturwissenschaften (1985), 72(12), 659-61
CODEN: NATWAY; ISSN: 0028-1042
DT Journal
LA English
CC 1-3 (Pharmacology)
GI



I

AB Avian herpes viruses grown in chicken fibroblast cultures were sensitive to caffeoylics (I; R1, R2, R3 and R4 = H or OH); the degree of sensitivity depended both upon the structure (substituent) and the strains of virus used. Caffeic acid [331-39-5], luteolin (R1 and R3 = H; R2 and R4 = OH) [491-70-3], quercetin (R1, R2, and R4 = OH; R3 = H) [117-39-5], and fisetin (R1 and R4 = OH; R2 and R3 = H) [528-48-3] were all active against the avian herpes viruses tested. Other caffeoylics tested and found to be active are chlorogenic acid [327-97-9], sulfuretin [120-05-8], and mixts. of 3 isochlorogenic acids. Caffeoylic compds. are naturally occurring in propolis (bee glue) and apparently responsible for its **antiviral** activity.
ST caffeoylic avian herpes virus structure
IT Virucides and Virustats
(caffeoylic compds. as, structure in relation to)
IT Virus, animal
(herpes, caffeoylic compds. effect on, structure in relation to)
IT Molecular structure-biological activity relationship
(virucidal, of caffeoylic compds.)
IT 117-39-5 120-05-8 327-97-9 331-39-5 491-70-3 528-48-3 2450-53-5 14534-61-3 57378-72-0 **70831-56-0**
RL: BIOL (Biological study)
(herpes virus inhibition by)

L4 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1996:393062 CAPLUS
DN 125:104334
TI Inhibitors of **HIV**-1 replication that inhibit **HIV** integrase
AU Robinson, W. Edward, Jr.; Reinecke, Manfred G.; Abdel-Malek, Samia; Jia, Qi; Chow, Samson A.

CS Department Pathology Microbiology Molecular Genetics, University California, Irvine, CA, 92717, USA
SO Proceedings of the National Academy of Sciences of the United States of America (1996), 93(13), 6326-6331
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
CC 1-5 (Pharmacology)
AB **HIV**-1 replication depends on the **viral** enzyme integrase that mediates integration of a DNA copy of the virus into the host cell genome. This enzyme represents a novel target to which **antiviral** agents might be directed. Three compds., 3,5-dicaffeoylquinic acid, 1-methoxyoxalyl-3,5-dicaffeoylquinic acid, and L-chicoric acid, inhibit **HIV**-1 integrase in biochem. assays at concns. ranging from 0.06-0.66 .mu.g/mL; furthermore, these compds. inhibit **HIV**-1 replication in tissue culture at 1-4 .mu.g/mL. The toxic concns. of these compds. are fully 100-fold greater than their **antiviral** concns. These compds. represent a potentially important new class of **antiviral** agents that may contribute to the authors understanding of the mol. mechanisms of **viral** integration. Thus, the dicaffeoylquinic acids are promising leads to new anti-**HIV** therapeutics and offer a significant advance in the search for new **HIV** enzyme targets as they are both specific for **HIV** -1 integrase and active against **HIV**-1 in tissue culture.
ST dicaffeoylquinate HIV1 virus replication integrase inhibitor
IT Virucides and Virustats
(dicaffeoylquinic acids as inhibitors of **HIV**-1 virus replication that inhibit **HIV** integrase)
IT Virus, animal
(human immunodeficiency 1, dicaffeoylquinic acids as inhibitors of **HIV**-1 virus replication that inhibit **HIV** integrase)
IT 2450-53-5, 3,5-Dicaffeoylquinic acid **70831-56-0** 179409-87-1
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dicaffeoylquinic acids as inhibitors of **HIV**-1 virus replication that inhibit **HIV** integrase)
IT 52350-85-3, Integrase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(dicaffeoylquinic acids as inhibitors of **HIV**-1 virus replication that inhibit **HIV** integrase)

L4 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1998:24769 CAPLUS
DN 128:149231
TI Dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of human immunodeficiency virus type 1 integrase
AU Mcdougall, Brenda; King, Peter J.; Wu, Bor Wen; Hostomsky, Zdenek; Reinecke, Manfred G.; Robinson, W. Edward, Jr.
CS Department of Pathology, University of California, Irvine, CA, 92697-4800, USA
SO Antimicrobial Agents and Chemotherapy (1998), 42(1), 140-146
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
CC 1-5 (Pharmacology)
Section cross-reference(s): 7
AB Current pharmacol. agents for human immunodeficiency virus (**HIV**) infection include drugs targeted against **HIV** reverse

transcriptase and **HIV** protease. An understudied therapeutic target is **HIV** integrase, an essential enzyme that mediates integration of the **HIV** genome into the host chromosome. The dicaffeoylquinic acids (DCQAs) and the dicaffeoyltartaric acids (DCTAs) have potent activity against **HIV** integrase in vitro and prevent **HIV** replication in tissue culture. However, their specificity against **HIV** integrase in cell culture has been questioned. Thus, the ability of the DCQAs and DCTAs to inhibit binding of **HIV** type 1 (**HIV**-1) gp120 to CD4 and their activities against **HIV**-1 reverse transcriptase and **HIV** RNase H were studied. The DCQAs and DCTAs inhibited **HIV**-1 integrase at concns. between 150 and 840 nM. They inhibited **HIV** replication at concns. between 2 and 12 .mu.M. Their activity against reverse transcriptase ranged from 7 .mu.M to greater than 100 .mu.M. Concns. that inhibited gp120 binding to CD4 exceeded 80 .mu.M. None of the compds. blocked **HIV**-1 RNase H by 50% at concns. exceeding 80 .mu.M. Furthermore, when the effects of the DCTAs on reverse transcription in acutely infected cells were measured, they were found to have no activity. Therefore, the DCQAs and DCTAs exhibit > 10- to > 100-fold specificity for **HIV** integrase, and their activity against integrase in biochem. assays is consistent with their obsd. anti-**HIV** activity in tissue culture. Thus, the DCQAs and DCTAs are a potentially important class of **HIV** inhibitors that act at a site distinct from that of current **HIV** therapeutic agents.

ST HIV1 integrase inhibition dicaffeoylquinate dicaffeoyltartarate

IT **Antiviral** agents
(action mechanism; dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of human immunodeficiency virus type 1 integrase)

IT Human immunodeficiency virus 1
(dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of **HIV**-1 integrase)

IT Anti-AIDS agents
(dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of human immunodeficiency virus type 1 integrase)

IT 2450-53-5, 3,5-Dicaffeoylquinic acid 14534-61-3, 3,4-Dicaffeoylquinic acid 30964-13-7, 1,5-Dicaffeoylquinic acid 57378-72-0, 4,5-Dicaffeoylquinic acid **70831-56-0** 179409-87-1
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of human immunodeficiency virus type 1 integrase)

IT 52350-85-3, Integrase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of human immunodeficiency virus type 1 integrase)

L4 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1998:601918 CAPLUS
DN 129:310451
TI Human immunodeficiency virus type 1 cDNA integration: new aromatic hydroxylated inhibitors and studies of the inhibition mechanism
AU Farnet, C. M.; Wang, B.; Hansen, M.; Lipford, J. R.; Zalkow, L.; Robinson, W. E., Jr.; Siegel, J.; Bushman, F.
CS Salk Institute for Biological Studies, La Jolla, CA, 92037, USA
SO Antimicrobial Agents and Chemotherapy (1998), 42(9), 2245-2253
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
CC 1-5 (Pharmacology)

Section cross-reference(s): 7

AB Integration of the **HIV**-1 cDNA is a required step for **viral** replication. Integrase, the virus-encoded enzyme important for integration, was not yet exploited as a target for clin. useful inhibitors. Here we report on the identification of new polyhydroxylated arom. inhibitors of integrase including ellagic acid, purpurogallin, 4,8,12-trioxatricornan, and hypericin, the last of which is known to inhibit **viral** replication. These compds. and others were characterized in assays with subviral preintegration complexes (PICs) isolated from **HIV**-1-infected cells. Hypericin was found to inhibit PIC assays, while the other compds. tested were inactive. Counterscreening of these and other integrase inhibitors against addnl. DNA-modifying enzymes revealed that none of the polyhydroxylated arom. compds. are active against enzymes that do not require metals (methylases, a pox virus topoisomerase). However, all were cross-reactive with metal-requiring enzymes (restriction enzymes, a reverse transcriptase), implicating metal atoms in the inhibitory mechanism. In mechanistic studies, we localized binding of some inhibitors to the catalytic domain of integrase by assaying competition of binding by labeled nucleotides. These findings help elucidate the mechanism of action of the polyhydroxylated arom. inhibitors and provide practical guidance for further inhibitor development.

ST arom hydroxylated inhibitor HIV1 cDNA integrase

IT Anti-AIDS agents
(inhibition activity and mechanism of arom. hydroxylated inhibitors for **HIV**-1 cDNA integration tested on preintegration complexes)

IT cDNA
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibition activity and mechanism of arom. hydroxylated inhibitors for **HIV**-1 cDNA integration tested on preintegration complexes)

IT Aromatic hydrocarbons, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(inhibition activity and mechanism of arom. hydroxylated inhibitors for **HIV**-1 cDNA integration tested on preintegration complexes)

IT 77-08-7 87-66-1, Pyrogallol 117-10-2, Danthron 319-89-1, Tetroquinone 327-97-9, Chlorogenic acid 476-66-4, Ellagic acid 500-38-9, Nordihydroguaiaretic acid 548-04-9, Hypericin 569-77-7, Purpurogallin 577-33-3, Anthrarobin **6537-80-0** 20636-41-3 35582-88-8 69595-67-1 76643-51-1 89919-62-0 91295-26-0 138259-51-5 139565-30-3 139565-35-8 139565-36-9 139565-41-6 139565-42-7 139565-43-8 214707-16-1 214707-18-3 214707-20-7 214707-21-8 214707-22-9
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(inhibition activity and mechanism of arom. hydroxylated inhibitors for **HIV**-1 cDNA integration tested on preintegration complexes)

IT 9068-38-6, Reverse transcriptase 52350-85-3, Integrase 80498-17-5, EcoRI 81295-34-3, PvuII 81458-00-6 129553-18-0, CpG methylase 143180-75-0, DNA topoisomerase I
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibition of DNA-modifying enzymes by polyhydrolylated arom. inhibitors of **HIV**-1 integrase)

L4 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2002 ACS

AN 1998:620304 CAPLUS

DN 129:325768

TI Resistance to the anti-human immunodeficiency virus type 1 compound L-chicoric acid results from a single mutation at amino acid 140 of integrase

AU King, Peter J.; Robinson, E. Edward, Jr.
CS Departments of Microbiology and Molecular Genetics, University of California, Irvine, CA, 92697, USA
SO Journal of Virology (1998), 72(10), 8420-8424
CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English
CC 1-5 (Pharmacology)
Section cross-reference(s): 3
AB L-Chicoric acid is an inhibitor of human immunodeficiency virus type 1 (**HIV**-1) integrase in vitro and of **HIV**-1 replication in tissue culture. Following 3 mo of selection in the presence of increasing concn. of L-chicoric acid, **HIV**-1 was completely resistant to the compd. Introduction of the mutant integrase contg. a single glycine-to-serine amino acid change at position 140 into the native, L-chicoric acid-sensitive virus demonstrated that this change was sufficient to confer resistance to L-chicoric acid. These results confirm through natural selection previous biochem. studies showing that L-chicoric acid inhibits integrase and that the drug is likely to interact at residues near the catalytic triad in the integrase active site.
ST chicoric acid HIV1 resistance integrase mutation
IT Enzyme functional sites
(active, catalytic triad; resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT Drug resistance
(**antiviral**; resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT Mutation
(point; resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT **Antiviral** agents
Human immunodeficiency virus 1
(resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT **Antiviral** agents
(resistance to; resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT **6537-80-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT 52350-85-3, Integrase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)

L4 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2002 ACS
AN 1998:623470 CAPLUS
DN 130:60611
TI L-Chicoric acid, an inhibitor of human immunodeficiency virus type 1 (**HIV**-1) integrase, improves on the in vitro anti-**HIV**-1 effect of Zidovudine plus a protease inhibitor (AG1350)
AU Edward Robinson, W.
CS D440 Med Sci I, Departments of Pathology and Microbiology and Molecular Genetics, University of California, Irvine, CA, 92697-4800, USA

SO Antiviral Research (1998), 39(2), 101-111
CODEN: ARSRDR; ISSN: 0166-3542
PB Elsevier Science B.V.
DT Journal
LA English
CC 1-5 (Pharmacology)
AB Combinations of anti-human immunodeficiency virus (**HIV**) drugs, including reverse transcriptase inhibitors and protease inhibitors, have proven immensely potent in the therapy of acquired immune deficiency syndrome (AIDS). To det. whether **HIV** integrase is a suitable target for combination therapy, the ability of an **HIV** integrase inhibitor, L-chicoric acid, to work in combination with a protease inhibitor and Zidovudine was tested in vitro. The addn. of L-chicoric acid to either Zidovudine or protease inhibitor improved upon the obsd. anti-**HIV** activity of either compd. alone. When all three drugs were combined, the anti-**HIV** activity was substantially better than either of the three compds. alone or any combination of two inhibitors. Doses of both Zidovudine and protease inhibitor could be reduced by more than 33% for an equiv. anti-**HIV** effect if L-chicoric acid was added. The improved anti-**HIV** activity was obsd. with a tissue culture adapted strain of **HIV** (HIVLAI) and with limited passage clin. isolates of **HIV** (HIVR19 and HIVR45). These data demonstrate that a first generation **HIV** integrase inhibitor, L-chicoric acid, is at least additive in combination with existing multi-drug regimens and suggest that **HIV** integrase will be an excellent target for combination therapy of **HIV** infection.
ST **antiviral** HIV1 integrase chicoric acid combined therapy; Zidovudine chicoric acid combined therapy HIV1; AG1350 chicoric acid combined therapy HIV1
IT **Antiviral** agents
Human immunodeficiency virus 1
(**HIV**-1 integrase inhibitor chicoric acid improves in vitro anti-**HIV**-1 effect of Zidovudine plus protease inhibitor AG1350)
IT Drug interactions
(additive; **HIV**-1 integrase inhibitor chicoric acid improves in vitro anti-**HIV**-1 effect of Zidovudine plus protease inhibitor AG1350)
IT 30516-87-1, Zidovudine **70831-56-0**, l-Chicoric acid
217817-99-7, AG 1350
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**HIV**-1 integrase inhibitor chicoric acid improves in vitro anti-**HIV**-1 effect of Zidovudine plus protease inhibitor AG1350)
IT 52350-85-3, Integrase 144114-21-6, Retropepsin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**HIV**-1 integrase inhibitor chicoric acid improves in vitro anti-**HIV**-1 effect of Zidovudine plus protease inhibitor AG1350)
RE.CNT 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD
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AN 1998:661494 CAPLUS
DN 129:298375
TI Antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases
IN Squires, Meryl
PA USA
SO PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A01N033-12
ICS A61K031-14
CC 1-5 (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9842188	A1	19981001	WO 1998-US5792	19980324
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6350784	B1	20020226	US 1997-824041	19970326
	AU 9867718	A1	19981020	AU 1998-67718	19980324
	AU 727339	B2	20001207		
	BR 9807892	A	20000222	BR 1998-7892	19980324
	EP 980203	A1	20000223	EP 1998-913086	19980324
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001527541	T2	20011225	JP 1998-545926	19980324
	NO 9904639	A	19991124	NO 1999-4639	19990924
PRAI	US 1997-824041	A	19970326		
	US 1996-600217	A2	19960212		
	US 1996-646988	A2	19960508		
	WO 1998-US5792	W	19980324		

AB An improved medical treatment and medicine is provided to quickly and safely resolve **HIV** and other microbial infections. The inexpensive medicine can be self administered and maintained for the prescribed time. The attractive medicine comprises an antimicrobial conc. comprising microbe inhibitors, phytochems. or isolates. Desirably, the effective medicine comprises a surfactant and an aq. carrier or solvent and a nutrient. In the preferred form, the medicine comprises: Echinacea and Commiphora myrrha phytochems., benzalkonium chloride, a sterile water soln., and folic acid.

ST phytochem nutrient antimicrobial **HIV**; Echinacea Commiphora phytochem surfactant antimicrobial **HIV**; folic acid phytochem antimicrobial **HIV**

IT Labia
Lip
Lymph node
Lymphatic system
T cell (lymphocyte)
(administration to; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Quaternary ammonium compounds, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(alkylbenzyldimethyl, bromides; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Quaternary ammonium compounds, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(alkylbenzyldimethyl, chlorides; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Surfactants
(amphoteric; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Bacilli
(anaerobic; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Allium
Anise
Arctostaphylos
Artemisia
Baptisia
Calendula
Capsicum
Carum
Compositae (Asteraceae)
Coriandrum
Echinacea angustifolia
Echinacea atribactilus
Echinacea pallida
Echinacea purpurea
Echinacea vegetalis
Eucalyptus
Eugenia mytacea
Gentian (Gentiana)
Inula
Juniper (Juniperus)
Labiatae (Lamiaceae)
Meliosma
Mentha
Mentha aquatica hypeuria
Myroxylon
Origanum
Parthenium integrifolium
Plantago
Rosemary
Ruta
Sage (Salvia)
(antimicrobial isolates of; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Adenoviridae
Antibacterial agents
Antimicrobial agents
Antiviral agents
Arbovirus
Arenavirus
Bird (Aves)
Cat (Felis catus)
Cattle
Commiphora erythraea
Commiphora molmol
Commiphora myrrha
Coronavirus
Cytomegalovirus
Dog (Canis familiaris)

Drug delivery systems
Gums and Mucilages
Horse (Equus caballus)
Human herpesvirus 1
Human herpesvirus 2
Human herpesvirus 3
Human herpesvirus 4
Human immunodeficiency virus
Human parainfluenza virus
Influenza virus
Livestock
Mycobacterium
Nutrients
Papillomavirus
Picornaviridae
Rodent
Sexually transmitted diseases
Sheep
Staphylococcus
Streptococcus
Surfactants
Swine
(antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Amides, biological studies
Anthocyanins
Enzymes, biological studies
Natural products, pharmaceutical
Polyacetylenes, biological studies
Polysaccharides, biological studies
Proteins, general, biological studies
Sesquiterpenes
Tannins
Vitamins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Encephalitis
Meningitis
(bacterial and **viral**; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Detergents
Surfactants
(cationic; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Inflammation
(cellulitis; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Polyacetylenes, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(derivs.; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Vitamins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fat-sol.; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT Drug delivery systems
(injections; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Mouth
(mucosa, administration to; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Drug delivery systems
(nasal; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Surfactants
(nonionic; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Drug delivery systems
(ophthalmic; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Animal tissue
(periacinal, administration to; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Plant (Embryophyta)
(phytochems.; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Intestine
(rectum, anus, administration to; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Drug delivery systems
(sublingual; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Quaternary ammonium compounds, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surfactant; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Carboxylic acids, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tetraenoic; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Drug delivery systems
(topical, and systemic; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Drug delivery systems
(vaginal; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Vitamins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(water-sol.; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT Surfactants
(zwitterionic; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)
IT 50-81-7, Ascorbic acid, biological studies 57-10-3, Hexadecanoic acid, biological studies 57-88-5, Cholesterol, biological studies 58-86-6, Xylose, biological studies 59-23-4, Galactose, biological studies 59-30-3, Folic acid, biological studies 59-43-8, Thiamin, biological studies 59-67-6, Niacin, biological studies 64-19-7, Acetic acid, biological studies 68-19-9, Vitamin B12 76-49-3, Bornyl acetate 79-83-4, Vitamin B5 80-56-8, .alpha.-Pinene 83-46-5, .beta.-Sitosterol 83-48-7, Stigmasterol 83-88-5, Riboflavin, biological studies 87-44-5, Caryophyllene 87-69-4, biological studies 97-53-0, Eugenol 104-55-2,

Cinnamaldehyde 108-39-4, biological studies 112-85-6D, Docosanoic acid, derivs. 117-39-5, Quercetin 121-33-5, Vanillin 122-03-2, Cuminaldehyde 127-91-3, .beta.-Pinene 138-86-3, Limonene 147-81-9, Arabinose 153-18-4, Rutin 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 331-39-5D, Caffeic acid, esters 474-58-8 474-62-4, Campesterol 480-10-4, Kaempferol-3-glucoside 482-35-9, Quercetin-3-glucoside 482-36-0 491-70-3, Luteolin 495-62-5, .gamma.-Bisabolene 504-97-2, Echinacein 507-70-0, Borneol 520-18-3, Kaempferol 520-36-5, Apigenin 534-61-2, Isochlorogenic acid 536-60-7, Cumic alcohol 548-75-4, Quercetagetin-7-glucoside 563-83-7 593-50-0, n-Triacontanol 604-80-8 638-96-0, .alpha.-Amyrone 639-99-6, Elemol 643-20-9D, Pyrrolizidine, alkaloid 1139-30-6, Caryophyllene epoxide 1406-16-2, Vitamin D 1406-18-4, Vitamin E 2450-53-5, 3,5-Dicaffeoylquinic acid 3562-36-5, Pontica epoxide 3615-41-6, Rhamnose 3812-32-6, Carbonate, biological studies 3943-97-3, Methyl p-hydroxycinnamate 4120-73-4, 4-O-Methylglucuronic acid 5373-11-5, Luteolin-7-glucoside 5937-48-4, 3-epi-.alpha.-Amyrin **6537-80-0**, Chicoric acid 6556-12-3, Glucuronic acid 7235-40-7, .beta.-Carotene 7439-89-6, Iron, biological studies 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-09-7, Potassium, biological studies 7440-23-5, Sodium, biological studies 7440-48-4, Cobalt, biological studies 7440-70-2, Calcium, biological studies 7723-14-0, Phosphorus, biological studies 7782-49-2, Selenium, biological studies 8001-18-1, Echinacin 8059-24-3, Vitamin B6 9005-80-5, Inulin 9014-63-5D, Xylan, derivs. 9036-66-2, Arabinogalactan 9040-28-2, 4-O-Methylglucuronoarabinoxylan 11006-56-7, Vitamin B15 11103-57-4, Vitamin A 12001-79-5, Vitamin K 12627-13-3, Silicate 13360-61-7, 1-Pentadecene 14808-79-8, Sulfate, biological studies 16887-00-6, Chloride, biological studies 17627-44-0, .alpha.-Bisabolene 17650-84-9 18668-90-1, 8-Pentadecen-2-one 18794-84-8, .beta.-Farnesene 19912-61-9, Furanodiene 20493-56-5, Curzerenone 23986-74-5, Germacrene D 24268-41-5, Furanodienone 24738-51-0 25067-58-7, Polyacetylene 25067-58-7D, Polyacetylene, derivs. 27214-55-7, Quercetin-3-xyloside 28028-64-0, Germacrene 29350-73-0, Cadinene 30964-13-7, Cynarin 36129-21-2 39007-92-6, Commiferin 47705-70-4 52525-35-6 57378-72-0 59440-97-0, Echinolone 61276-17-3, Verbascoside 67879-58-7 69350-61-4, Epishyobunol 74282-22-7 75081-19-5, Pentadecadiene 76963-26-3 80151-77-5, Tussilagine 82854-37-3, Echinacoside 84744-28-5 91108-32-6, Isotussilagine 94977-38-5 99119-75-2 99119-76-3 116752-09-1 116752-10-4 117841-81-3 118853-85-3 125199-93-1 148879-89-4, Commiphorinic acid 149531-55-5, .alpha.-Commiphoric acid 149531-56-6, .beta.-Commiphoric acid 149531-57-7, .gamma.-Commiphoric acid 162666-19-5, Inuloidin 205510-62-9, Echinacin B 214041-69-7 214041-70-0 214041-71-1 214041-72-2 214041-73-3 214405-10-4, Heerabolene 214405-11-5, .alpha.-Heerabomyrrhol 214405-12-6, .beta.-Heerabomyrrhol 214405-13-7, Heeraboresene 214405-44-4, Viracea 1 214405-45-5, Viracea 2
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT 120-32-1, o-Benzyl-p-chlorophenol 139-07-1, Lauryldimethylbenzylammonium chloride 5538-94-3, Dioctyldimethylammonium chloride 7173-51-5, Didecyldimethylammonium chloride 32426-11-2, Octyldecyldimethylammonium chloride
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT 12001-76-2, Vitamin B
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complex; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

IT 79-14-1D, Glycolic acid, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surfactant; antimicrobial prevention and treatment of human immunodeficiency virus and other infectious diseases)

=> d his

(FILE 'HOME' ENTERED AT 07:17:09 ON 26 AUG 2002)

FILE 'REGISTRY' ENTERED AT 07:18:01 ON 26 AUG 2002
E CHICONIC
E CHICORIC
L1 3 S E3

FILE 'CAPLUS' ENTERED AT 07:19:33 ON 26 AUG 2002
L2 168635 S VIRAL OR ANTIVIRAL OR HIV OR RETROVIRAL
L3 109 S L1
L4 26 S L3 AND L2

=> s nelfinavir
L5 707 NELFINAVIR

=> d l5 700-707

L5 ANSWER 700 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1997:319359 CAPLUS
DN 127:28662
TI Decay characteristics of HIV-1-infected compartments during combination therapy
AU Perelson, Alan S.; Essunger, Paulina; Cao, Yunzhen; Vesanen, Mika; Hurley, Arlene; Saksela, Kalle; Markowitz, Martin; Ho, David D.
CS Theoretical division, Los Alamos National Laboratory, Los Alamos, NM, 87545, USA
SO Nature (London) (1997), 387(6629), 188-191
CODEN: NATUAS; ISSN: 0028-0836
PB Macmillan Magazines
DT Journal
LA English

L5 ANSWER 701 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1997:156459 CAPLUS
DN 126:258416
TI Pharmacokinetic enhancement of inhibitors of the human immunodeficiency virus protease by coadministration with ritonavir
AU Kempf, Dale J.; Marsh, Kennan C.; Kumar, Gondi; Rodrigues, A. David; Denissen, Jon F.; McDonald, Edith; Kukulka, Michael J.; Hsu, Ann; Granneman, G. Richard; Baroldi, Paolo A.; Sun, Eugene; Pizzuti, David; Plattner, Jacob J.; Norbeck, Daniel W.; Leonard, John M.
CS Dep. Infectious Diseases Res., Abbott Lab., Abbott Park, IL, 60064, USA
SO Antimicrobial Agents and Chemotherapy (1997), 41(3), 654-660
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English

L5 ANSWER 702 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1997:123470 CAPLUS

DN 126:220157
TI Stavudine: pharmacology, clinical use and future role
AU Moyle, Graeme J.
CS Kobler Clinic, Chelsea and Westminster Hosp., London, SW10 9NH, UK
SO Expert Opinion on Investigational Drugs (1997), 6(2), 191-200
CODEN: EOIDER; ISSN: 0967-8298
PB Ashley Publications
DT Journal; General Review
LA English

L5 ANSWER 703 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1997:79291 CAPLUS
DN 126:165974
TI HIV-1 protease inhibitors, A review for clinicians
AU Deeks, Steven G.; Smith, Mark; Holodniy, Mark; Kahn, James O.
CS University of California, San Francisco, CA, USA
SO JAMA, the Journal of the American Medical Association (1997), 277(2), 145-153
CODEN: JAMAAP; ISSN: 0098-7484
PB American Medical Association
DT Journal; General Review
LA English

L5 ANSWER 704 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1997:48325 CAPLUS
DN 126:139331
TI Advances in antiretroviral therapy and viral load monitoring
AU Hammer, Scott M.
CS Harvard Medical School, Deaconess Hospital, Boston, MA, 02215, USA
SO AIDS (London) (1996), 10(Suppl. 3), S1-S11
CODEN: AIDSET; ISSN: 0269-9370
PB Rapid Science Publishers
DT Journal; General Review
LA English

L5 ANSWER 705 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1996:642100 CAPLUS
DN 125:315866
TI Ritonavir
AU Lea, Andrew P.; Faulds, Diana
CS Adis International Limited, Auckland, N. Z.
SO Drugs (1996), 52(4), 541-546
CODEN: DRUGAY; ISSN: 0012-6667
PB Adis
DT Journal; General Review
LA English

L5 ANSWER 706 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1996:486831 CAPLUS
DN 125:184502
TI HIV protease inhibitors in early development
AU Sham, Hing L.; Chen, Xiaoqi
CS Anti-infective Research Division, Abbott Laboratories, Abbott Park, IL, 60064, USA
SO Expert Opinion on Investigational Drugs (1996), 5(8), 977-983
CODEN: EOIDER; ISSN: 0967-8298
PB Ashley Publications
DT Journal; General Review
LA English

L5 ANSWER 707 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1996:343236 CAPLUS

DN 125:47999
TI Current knowledge and future prospects for the use of HIV protease inhibitors
AU Moyle, Graeme; Gazzard, Brian
CS Chelsea and Westminster Hospital, Kobler Centre, London, UK
SO Drugs (1996), 51(5), 701-712
CODEN: DRUGAY; ISSN: 0012-6667
PB Adis
DT Journal; General Review
LA English

=> d l5 706 705 703 all

L5 ANSWER 706 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1996:486831 CAPLUS
DN 125:184502
TI HIV protease inhibitors in early development
AU Sham, Hing L.; Chen, Xiaoqi
CS Anti-infective Research Division, Abbott Laboratories, Abbott Park, IL, 60064, USA
SO Expert Opinion on Investigational Drugs (1996), 5(8), 977-983
CODEN: EOIDER; ISSN: 0967-8298
PB Ashley Publications
DT Journal; General Review
LA English
CC 1-0 (Pharmacology)
AB A review with 46 refs. Over the last ten years, two important intervention points in the life cycle of the human immunodeficiency virus (HIV) which involve two viral-specific enzymes, HIV reverse transcriptase (RT) and HIV protease, have been the target of intense research efforts to identify useful therapeutic agents. Several nucleoside analogs which are RT inhibitors have been approved for use in humans. Several nonnucleoside RT inhibitors are now under development. Within the last twelve months, three different HIV protease inhibitors-saquinavir, ritonavir and indinavir-have been approved for marketing, thus validating the concept of HIV protease as an important therapeutic target. In this review, several new HIV protease inhibitors that are in early clin. development will be discussed. These compds. are VX-478, AG-1343 (**nelfinavir** mesylate), palinavir, KNI-272, DMP-450, U-103017 and CGP 61755.
ST review HIV protease inhibitor
IT Acquired immune deficiency syndrome
Virucides and Virustats
(HIV protease inhibitors in early development)
IT Virus, animal
(human immunodeficiency 1, HIV protease inhibitors in early development)
IT 144114-21-6, Retropepsin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(HIV protease inhibitors in early development)

L5 ANSWER 705 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1996:642100 CAPLUS
DN 125:315866
TI Ritonavir
AU Lea, Andrew P.; Faulds, Diana
CS Adis International Limited, Auckland, N. Z.
SO Drugs (1996), 52(4), 541-546
CODEN: DRUGAY; ISSN: 0012-6667
PB Adis
DT Journal; General Review
LA English

CC 1-0 (Pharmacology)
AB A review with .apprx.37 refs. Ritonavir is a protease inhibitor with an HIV-1 resistance profile similar to that of indinavir, but different from that of saquinavir. Ritonavir has good oral bioavailability, and may increase the bioavailability of other protease inhibitors including saquinavir, **nelfinavir**, indinavir and VX-478. Clin. significant drug interactions have been predicted between ritonavir and a range of medications. In patients with HIV-1 infection, ritonavir markedly reduced viral load within 2 wk of treatment onset and also increased CD4+ cell counts. In a large placebo-controlled trial in patients with advanced HIV infection, the addn. of ritonavir to existing therapy reduced the risk of mortality by 43% and clin. progression by 56% after 6.1 mo. Triple therapy with ritonavir plus zidovudine, in combination with lamivudine or zalcitabine, reduced HIV viremia to below detectable levels in most patients with acute, and some patients with advanced HIV infection in 2 small trials. Early results suggest combination therapy with ritonavir and saquinavir increases CD4+ cell counts and decreases HIV RNA levels in patients with previously untreated HIV infection.
ST review ritonavir protease inhibitor indinavir saquinavir; **nelfinavir** saquinavir drug interaction zidovudine review; zidovudine lamivudine zalcitabine antiviral review
IT Drug interactions
Virucides and Virustats
(a review of ritonavir in humans)
IT 7481-89-2, Zalcitabine 30516-87-1, Zidovudine 37205-61-1, Proteinase inhibitor 127779-20-8, Saquinavir 134678-17-4, Lamivudine 150378-17-9, Indinavir 155213-67-5, Ritonavir 159989-64-7
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(a review of ritonavir in humans)

L5 ANSWER 703 OF 707 CAPLUS COPYRIGHT 2002 ACS
AN 1997:79291 CAPLUS
DN 126:165974
TI HIV-1 protease inhibitors, A review for clinicians
AU Deeks, Steven G.; Smith, Mark; Holodniy, Mark; Kahn, James O.
CS University of California, San Francisco, CA, USA
SO JAMA, the Journal of the American Medical Association (1997), 277(2), 145-153
CODEN: JAMAAP; ISSN: 0098-7484
PB American Medical Association
DT Journal; General Review
LA English
CC 1-0 (Pharmacology)
AB A review with .apprx.59 refs. The clin. care of people infected with human immunodeficiency virus (HIV) has been substantially affected by the introduction of HIV-specific protease inhibitors (PIs). The 4 PIs available are saquinavir mesylate, ritonavir, indinavir sulfate, and **nelfinavir** mesylate. Comparison studies have not been reported; therefore, an assessment of the available data to aid clinicians and patients in choosing appropriate treatment will be presented. A systematic review of peer-reviewed publications, abstrs. from national and international conferences, and product registration information through Sept. 1996. Criteria used to select studies include their relevance to PIs, having been published in the English language, and pertinence for clinicians. Data quality and validity included the venue of the publication and relevance to clin. care. Oral administration of ritonavir, indinavir, or **nelfinavir** generates sustainable drug serum levels to effectively inhibit the protease enzyme; however, saquinavir may not generate sustained levels necessary to inhibit the protease enzyme. Patients treated with ritonavir, indinavir, or

nelfinavir experience similar redns. in viral load and increases in CD4+ lymphocytes; smaller effects occur among those treated with saquinavir. Two randomized placebo-controlled studies conducted among patients with severe immune system suppression and substantial zidovudine treatment experience demonstrated reduced HIV disease progression and reduced mortality with PI treatment. Genotypic resistance to PIs occurs; the clin. relevance of resistance is unclear. The costs of these agents including required monitoring impose new and substantial costs. The PIs have emerged as crit. drugs for people with HIV infection. Optimal use involves combination with reverse transcriptase inhibitors. Resistance develops to each agent, and cross-resistance is likely. These agents must be used at full doses with attention to ensuring patient compliance. The expense of these agents may be offset by forestalling disease progression and death and returning people to productive life. Selecting the initial PI must be individualized, and factors to consider include proven activity, possible toxicities, dosing regimens, drug interactions, and costs.

ST review HIV1 protease inhibitor

IT Human immunodeficiency virus 1
(HIV-1 protease inhibitors, A review for clinicians in humans)

IT 37205-61-1, Proteinase inhibitor
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(HIV-1 protease inhibitors, A review for clinicians in humans)

```
=> s dideoxycytidine
L6          845 DIDEOXYCYTIDINE

=> s l6 and azt
           2890 AZT
L7          243 L6 AND AZT

=> s zidovudine
L8         2360 ZIDOVUDINE

=> s l8 and azt
           2890 AZT
L9          588 L8 AND AZT

=> d his

     (FILE 'HOME' ENTERED AT 07:17:09 ON 26 AUG 2002)

     FILE 'REGISTRY' ENTERED AT 07:18:01 ON 26 AUG 2002
                E CHICONIC
                E CHICORIC
L1              3 S E3

     FILE 'CAPLUS' ENTERED AT 07:19:33 ON 26 AUG 2002
L2         168635 S VIRAL OR ANTIVIRAL OR HIV OR RETROVIRAL
L3            109 S L1
L4             26 S L3 AND L2
L5            707 S NELFINAVIR
L6            845 S DIDEOXYCYTIDINE
L7            243 S L6 AND AZT
L8           2360 S ZIDOVUDINE
L9            588 S L8 AND AZT

=> d l6 820-845
```

L6 ANSWER 820 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1987:470319 CAPLUS
DN 107:70319
TI Inhibitory effect of 2',3'-didehydro-2',3'-dideoxynucleosides on infectivity, cytopathic effects, and replication of human immunodeficiency virus
AU Hamamoto, Yoshiaki; Nakashima, Hideki; Matsui, Toshio; Matsuda, Akira; Ueda, Toru; Yamamoto, Naoki
CS Sch. Med., Yamaguchi Univ., Ube, 755, Japan
SO Antimicrob. Agents Chemother. (1987), 31(6), 907-10
CODEN: AMACCQ; ISSN: 0066-4804
DT Journal
LA English

L6 ANSWER 821 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1987:470318 CAPLUS
DN 107:70318
TI Initial studies on the cellular pharmacology of 2',3'-dideoxyadenosine, an inhibitor of HTLV-III infectivity
AU Cooney, David A.; Ahluwalia, Gurpreet; Mitsuya, Hiroaki; Fridland, Arnold; Johnson, Mark; Hao, Zhang; Dalal, Maha; Balzarini, Jan; Broder, Samuel; Johns, David G.
CS Div. Cancer Treat., Natl. Cancer Inst., Bethesda, MD, 20892, USA
SO Biochem. Pharmacol. (1987), 36(11), 1765-8
CODEN: BCPCA6; ISSN: 0006-2952
DT Journal
LA English

L6 ANSWER 822 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1987:459403 CAPLUS
DN 107:59403
TI 3'-Substituted 2',3'-dideoxynucleoside analogs as potential anti-HIV (HTLV-III/LAV) agents
AU Herdewijn, Piet; Balzarini, Jan; De Clercq, Erik; Pauwels, Rudi; Baba, Masanori; Broder, Samuel; Vanderhaeghe, Hubert
CS Raga Inst. Med. Res., Kathol. Univ. Leuven, Louvain, B-3000, Belg.
SO J. Med. Chem. (1987), 30(8), 1270-8
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
OS CASREACT 107:59403

L6 ANSWER 823 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1987:451420 CAPLUS
DN 107:51420
TI Antiviral activity of 2',3'-dideoxycytidin-2'-ene (2',3'-dideoxy-2',3'-didehydrocytidine) against human immunodeficiency virus in vitro
AU Lin, Tai Shun; Schinazi, Raymond F.; Chen, Ming S.; Kinney-Thomas, Elaine; Prusoff, William H.
CS Sch. Med., Yale Univ., New Haven, CT, 06510, USA
SO Biochem. Pharmacol. (1987), 36(3), 311-16
CODEN: BCPCA6; ISSN: 0006-2952
DT Journal
LA English

L6 ANSWER 824 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1987:192624 CAPLUS
DN 106:192624
TI Long-term inhibition of human T-lymphotropic virus type III/lymphadenopathy-associated virus (human immunodeficiency virus) DNA synthesis and RNA expression in T cells protected by 2',3'-dideoxynucleosides in vitro

AU Mitsuya, Hiroaki; Jarrett, Ruth F.; Matsukura, Makoto; Marzo Veronese, Fulvia Di; DeVico, Anthony L.; Sarngadharan, M. G.; Johns, David G.; Reitz, Marvin S.; Broder, Samuel
CS Clin. Oncol. Program, Natl. Cancer Inst., Bethesda, MD, 20892, USA
SO Proc. Natl. Acad. Sci. U. S. A. (1987), 84(7), 2033-7
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English

L6 ANSWER 825 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1987:168519 CAPLUS
DN 106:168519
TI Both 2',3'-dideoxythymidine and its 2',3'-unsaturated derivative (2',3'-dideoxythymidinene) are potent and selective inhibitors of human immunodeficiency virus replication in vitro
AU Baba, Masanori; Pauwels, Rudi; Herdewijn, Piet; De Clercq, Erik; Desmyter, Jan; Vandeputte, Michel
CS Rega Inst. Med. Res., Kathol. Univ. Leuven, Louvain, B-3000, Belg.
SO Biochem. Biophys. Res. Commun. (1987), 142(1), 128-34
CODEN: BBRCA9; ISSN: 0006-291X
DT Journal
LA English

L6 ANSWER 826 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1987:156808 CAPLUS
DN 106:156808
TI Potential anti-AIDS drugs. 2',3'-**Dideoxycytidine** analogs
AU Kim, Chong Ho; Marquez, Victor E.; Broder, Samuel; Mitsuya, Hiroaki; Driscoll, John S.
CS Lab. Med. Chem., Natl. Cancer Inst., Bethesda, MD, 20892, USA
SO J. Med. Chem. (1987), 30(5), 862-6
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
OS CASREACT 106:156808

L6 ANSWER 827 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1987:131292 CAPLUS
DN 106:131292
TI Cellular metabolism of 2',3'-**dideoxycytidine**, a compound active against human immunodeficiency virus in vitro
AU Starnes, Milbrey Cate; Cheng, Yung Chi
CS Sch. Med., Univ. North Carolina, Chapel Hill, NC, 27514, USA
SO J. Biol. Chem. (1987), 262(3), 988-91
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English

L6 ANSWER 828 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1987:60811 CAPLUS
DN 106:60811
TI Potent and selective anti-HTLV-III/LAV activity of 2',3'-dideoxycytidinene, the 2',3'-unsaturated derivative of 2',3'-**dideoxycytidine**
AU Balzarini, Jan; Pauwels, Rudi; Herdewijn, Piet; De Clercq, Erik; Cooney, David A.; Kang, Gil Jong; Dalal, Maha; Johns, David G.; Broder, Samuel
CS Clin. Oncol. Program, Natl. Cancer Inst., Bethesda, MD, 20892, USA
SO Biochem. Biophys. Res. Commun. (1986), 140(2), 735-42
CODEN: BBRCA9; ISSN: 0006-291X
DT Journal
LA English

L6 ANSWER 829 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1986:573004 CAPLUS
DN 105:173004
TI 3-Amino-2',3'-**dideoxycytidine** and its pharmacologically acceptable salts
IN Lin, Tai Shun; Prusoff, William H.
PA Research Corp. , USA
SO U.S., 7 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4604382	A	19860805	US 1983-458335	19830117
	CA 1217184	A1	19870127	CA 1984-445193	19840112
	US 5099010	A	19920324	US 1986-864645	19860515
PRAI	US 1983-458335		19830117		

OS CASREACT 105:173004

L6 ANSWER 830 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1986:507977 CAPLUS
DN 105:107977
TI Initial studies on the cellular pharmacology of 2',3'-**dideoxycytidine**, an inhibitor of HTLV-III infectivity
AU Cooney, David A.; Dalal, Maha; Mitsuya, Hiroaki; McMahon, James B.; Nadkarni, Mohan; Balzarini, Jan; Broder, Samuel; Johns, David G.
CS Div. Cancer Treatment, Natl. Cancer Inst., Bethesda, MD, 20892, USA
SO Biochem. Pharmacol. (1986), 35(13), 2065-8
CODEN: BCPCA6; ISSN: 0006-2952
DT Journal
LA English

L6 ANSWER 831 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1985:181708 CAPLUS
DN 102:181708
TI A fidelity assay using "dideoxy" DNA sequencing: a measurement of sequence dependence and frequency of forming 5-bromouracil.cntdot.guanine base mispairs
AU Lasken, Roger S.; Goodman, Myron F.
CS Dep. Biol. Sci., Univ. South. California, Los Angeles, CA, 90089-1481, USA
SO Proc. Natl. Acad. Sci. U. S. A. (1985), 82(5), 1301-5
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English

L6 ANSWER 832 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1985:56966 CAPLUS
DN 102:56966
TI Multiple initiation sites of DNA replication flanking the origin region of .lambda.dv genome
AU Tsurimoto, Toshiki; Matsubara, Kenichi
CS Inst. Mol. Cell. Biol., Osaka Univ., Suita, 565, Japan
SO Proc. Natl. Acad. Sci. U. S. A. (1984), 81(23), 7402-6
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English

L6 ANSWER 833 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1984:586821 CAPLUS
DN 101:186821
TI Replication of bacteriophage .vphi.29 DNA in vitro: the roles of terminal

protein and DNA polymerase
AU Watabe, Kounosuke; Leusch, Mark; Ito, Junetsu
CS Coll. Med., Univ. Arizona, Tucson, AZ, 85724, USA
SO Proc. Natl. Acad. Sci. U. S. A. (1984), 81(17), 5374-8
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English

L6 ANSWER 834 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1983:595332 CAPLUS
DN 99:195332
TI Synthesis and biological activity of various 3'-azido and 3'-amino analogs of 5-substituted pyrimidine deoxyribonucleosides
AU Lin, Tai Shun; Gao, You Song; Mancini, William R.
CS Sch. Med., Yale Univ., New Haven, CT, 06510, USA
SO J. Med. Chem. (1983), 26(12), 1691-6
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English

L6 ANSWER 835 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1983:587206 CAPLUS
DN 99:187206
TI Ribo- and deoxyribonucleoside effect on 3'-amino-2',3'-**dideoxycytidine**-induced cytotoxicity in cultured L1210 cells
AU Mancini, William R.; Lin, Tai Shun
CS Sch. Med., Yale Univ., New Haven, CT, 06510, USA
SO Biochem. Pharmacol. (1983), 32(16), 2427-32
CODEN: BCPCA6; ISSN: 0006-2952
DT Journal
LA English

L6 ANSWER 836 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1983:157689 CAPLUS
DN 98:157689
TI Inhibition of vesicular stomatitis virus RNA synthesis by 2',3'-**dideoxycytidine** 5'-triphosphate
AU Patton, John T.; Davis, Nancy L.; Wertz, Gail W.
CS Med. Sch., Univ. North Carolina, Chapel Hill, NC, 27514, USA
SO J. Gen. Virol. (1983), 64(3), 743-8
CODEN: JGVIAY; ISSN: 0022-1317
DT Journal
LA English

L6 ANSWER 837 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1983:119272 CAPLUS
DN 98:119272
TI Synthesis and antineoplastic activity of 3'-azido and 3'-amino analogs of pyrimidine deoxyribonucleoside
AU Lin, Tai Shun; Mancini, William R.
CS Sch. Med., Yale Univ., New Haven, CT, 06510, USA
SO J. Med. Chem. (1983), 26(4), 544-8
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English

L6 ANSWER 838 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1982:577136 CAPLUS
DN 97:177136
TI Initiation of phage .vphi.29 DNA replication in vitro: formation of a covalent complex between the terminal protein, p3, and 5'-dAMP
AU Penalva, Miguel A.; Salas, Margarita

CS Cent. Biol. Mol., Univ. Auton. Canto Blanco, Madrid, 34, Spain
SO Proc. Natl. Acad. Sci. U. S. A. (1982), 79(18), 5522-6
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English

L6 ANSWER 839 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1981:188478 CAPLUS
DN 94:188478
TI Multiple rounds of adenovirus DNA synthesis in vitro
AU Horwitz, Marshall S.; Ariga, Hiroyoshi
CS Dep. Microbiol.-Immunol., Albert Einstein Coll. Med., Bronx, NY, 10461, USA
SO Proc. Natl. Acad. Sci. U. S. A. (1981), 78(3), 1476-80
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English

L6 ANSWER 840 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1980:6851 CAPLUS
DN 92:6851
TI Synthetic analogs of polynucleotides. Part 15. The synthesis and properties of poly(5'-amino-3'-O-carboxymethyl-2',5'-dideoxy-erythro-pentonucleosides) containing 3'(O) .fwdarw. 5'(C) acetamidate linkages
AU Gait, Michael J.; Jones, A. Stanley; Jones, Michael D.; Shepherd, Martin J.; Walker, Richard T.
CS Chem. Dep., Univ. Birmingham, Birmingham, Engl.
SO J. Chem. Soc., Perkin Trans. 1 (1979), (6), 1389-94
CODEN: JCPRB4; ISSN: 0300-922X
DT Journal
LA English

L6 ANSWER 841 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1979:87843 CAPLUS
DN 90:87843
TI 5-Iodo-5'-amino-2',5'-**dideoxycytidine** and pharmaceutically acceptable salts
IN Lin, Tai-Shun; Prusoff, H. William; Ward, David C.
PA Research Corp., USA
SO U.S., 3 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4093715	A	19780606	US 1977-792011	19770428
	DE 2818221	A1	19781109	DE 1978-2818221	19780426
	CA 1091660	A1	19801216	CA 1978-302124	19780427
	FR 2388828	A1	19781124	FR 1978-12689	19780428
	FR 2388828	B1	19800430		
	JP 53149987	A2	19781227	JP 1978-50166	19780428
	GB 1578110	A	19801029	GB 1978-17045	19780428
PRAI	US 1977-792011		19770428		

L6 ANSWER 842 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1974:96273 CAPLUS
DN 80:96273
TI Synthesis of pyrimidine deoxynucleosides. II. One-step halogenation at the 2'-positioin of uridine, and related reactions of cytidine and N4-acetylcytidine
AU Marumoto, Ryuji; Honjo, Mikio

CS Cent. Res. Div., Takeda Chem. Ind., Ltd., Osaka, Japan
SO Chem. Pharm. Bull. (1974), 22(1), 128-34
CODEN: CPBTAL
DT Journal
LA English

L6 ANSWER 843 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1972:99968 CAPLUS
DN 76:99968
TI Vilsmeier-Haack reaction. IV. Convenient synthesis of 2,2'-anhydro-1-.beta.-D-arabinofuranosyl cytosine (2,2'-cyclocytidine) and its derivatives
AU Kikugawa, Kiyomi; Ichino, Motonobu
CS Div. Ferment. Chem. Prod., Kohjin Co., Ltd., Saiki, Japan
SO J. Org. Chem. (1972), 37(2), 284-8
CODEN: JOCEAH
DT Journal
LA English

L6 ANSWER 844 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1967:115925 CAPLUS
DN 66:115925
TI Nucleosides. XI. 2',3'-**Dideoxycytidine**
AU Horwitz, Jerome P.; Chua, Jonathan; Noel, Michael; Donatti, Joseph T.
CS Michigan Cancer Found., Detroit, Mich., USA
SO J. Org. Chem. (1967), 32(3), 817-18
CODEN: JOCEAH
DT Journal
LA English

L6 ANSWER 845 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1965:463458 CAPLUS
DN 63:63458
OREF 63:11685c-f
TI Nucleoside studies. IV. The synthesis of 2',5'-dideoxycytidines and other derivatives of 2'-deoxycytidine
AU Benz, Elizabeth; Elmore, Norman F.; Goldman, Leon
CS Am. Cyanamid Co., Pearl River, NY
SO J. Org. Chem. (1965), 30(9), 3067-71
DT Journal
LA English

=> d l6 827 all

L6 ANSWER 827 OF 845 CAPLUS COPYRIGHT 2002 ACS
AN 1987:131292 CAPLUS
DN 106:131292
TI Cellular metabolism of 2',3'-**dideoxycytidine**, a compound active against human immunodeficiency virus in vitro
AU Starnes, Milbrey Cate; Cheng, Yung Chi
CS Sch. Med., Univ. North Carolina, Chapel Hill, NC, 27514, USA
SO J. Biol. Chem. (1987), 262(3), 988-91
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
CC 1-5 (Pharmacology)
AB The nucleoside analog 2',3'-**dideoxycytidine** (ddCyd) [7481-89-2] has been shown to inhibit the infectivity and cytopathic effect of human immunodeficiency virus on human OKT4+ lymphocytes in vitro. Metab. of ddCyd by human T-lymphoblastic cells (Molt 4) neg. for human immunodeficiency virus and OKT4 was examd. Molt 4 cells accumulated ddCyd

and its phosphorylated derivs. into acid sol. and acid-insol. material in a dose-dependent manner. For each concn. tested, 2',3'-**dideoxycytidine** triphosphate [66004-77-1] represented 40% of the total acid-sol. pool of ddCyd metabolites. Uptake of 5 .mu.M ddCyd was linear for 4 h after addn. of drug. Efflux of ddCyd metabolites from cells followed a biphasic course with an initial retention half-life of 2.6 h for 2',3'-**dideoxycytidine** triphosphate. DNA, but not RNA, of cells incubated with [3H]ddCyd became radiolabeled. Nuclease and phosphatase treatment of DNA followed by reverse-phase HPLC showed that the nucleoside was incorporated into DNA in its original form. DdCyd was not susceptible to deamination by human deoxycytidine deaminase [37259-56-6]. It was a poor substrate for human cytoplasmic and mitochondrial dCyd kinase [9039-45-6], with KM values of 180 and 120 .mu.M, resp. DNA polymerase [9012-90-2] .alpha., .beta., and .gamma. varied in their sensitivities to inhibition by ddCTP with Ki values of 110, 2.6, and 0.016 .mu.M, resp.; however, inhibition was competitive with dCTP in each case.

ST **dideoxycytidine** metab lymphoblast; immunodeficiency virus **dideoxycytidine** cellular metab

IT Deoxyribonucleic acid formation
Ribonucleic acid formation
(**dideoxycytidine** incorporation into, of human T-lymphoblastic cells)

IT Lymphoblast
(T-, **dideoxycytidine** metab. by human)

IT 37259-56-6
RL: BIOL (Biological study)
(**dideoxycytidine** deamination response to human)

IT 9039-45-6
RL: BIOL (Biological study)
(**dideoxycytidine** phosphorylation by, of human)

IT 66004-77-1 104086-75-1 104086-76-2
RL: FORM (Formation, nonpreparative)
(formation of, as **dideoxycytidine** metabolite in human T-lymphoblastic cells)

IT 9012-90-2, DNA polymerase
RL: BIOL (Biological study)
(inhibition of human, by **dideoxycytidine**)

IT 7481-89-2, 2',3'-**Dideoxycytidine**
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(metab. of, by human T-lymphoblastic cells)

=> d his

(FILE 'HOME' ENTERED AT 07:17:09 ON 26 AUG 2002)

FILE 'REGISTRY' ENTERED AT 07:18:01 ON 26 AUG 2002
E CHICONIC
E CHICORIC
L1 3 S E3

FILE 'CAPLUS' ENTERED AT 07:19:33 ON 26 AUG 2002
L2 168635 S VIRAL OR ANTIVIRAL OR HIV OR RETROVIRAL
L3 109 S L1
L4 26 S L3 AND L2
L5 707 S NELFINAVIR
L6 845 S DIDEOXYCYTIDINE
L7 243 S L6 AND AZT
L8 2360 S ZIDOVUDINE
L9 588 S L8 AND AZT

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---Logging off of STN---

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CA SUBSCRIBER PRICE	-6.82	-6.82

STN INTERNATIONAL LOGOFF AT 07:40:44 ON 26 AUG 2002

AN 1998:623470 CAPLUS
DN 130:60611
TI L-Chicoric acid, an inhibitor of human immunodeficiency virus type 1 (**HIV**-1) integrase, improves on the in vitro anti-**HIV**-1 effect of Zidovudine plus a protease inhibitor (AG1350)
AU Edward Robinson, W.
CS D440 Med Sci I, Departments of Pathology and Microbiology and Molecular Genetics, University of California, Irvine, CA, 92697-4800, USA
SO Antiviral Research (1998), 39(2), 101-111
CODEN: ARSRDR; ISSN: 0166-3542
PB Elsevier Science B.V.
DT Journal
LA English
CC 1-5 (Pharmacology)
AB Combinations of anti-human immunodeficiency virus (**HIV**) drugs, including reverse transcriptase inhibitors and protease inhibitors, have proven immensely potent in the therapy of acquired immune deficiency syndrome (AIDS). To det. whether **HIV** integrase is a suitable target for combination therapy, the ability of an **HIV** integrase inhibitor, L-chicoric acid, to work in combination with a protease inhibitor and Zidovudine was tested in vitro. The addn. of L-chicoric acid to either Zidovudine or protease inhibitor improved upon the obsd. anti-**HIV** activity of either compd. alone. When all three drugs were combined, the anti-**HIV** activity was substantially better than either of the three compds. alone or any combination of two inhibitors. Doses of both Zidovudine and protease inhibitor could be reduced by more than 33% for an equiv. anti-**HIV** effect if L-chicoric acid was added. The improved anti-**HIV** activity was obsd. with a tissue culture adapted strain of **HIV** (HIVLAI) and with limited passage clin. isolates of **HIV** (HIVR19 and HIVR45). These data demonstrate that a first generation **HIV** integrase inhibitor, L-chicoric acid, is at least additive in combination with existing multi-drug regimens and suggest that **HIV** integrase will be an excellent target for combination therapy of **HIV** infection.
ST **antiviral** HIV1 integrase chicoric acid combined therapy; Zidovudine chicoric acid combined therapy HIV1; AG1350 chicoric acid combined therapy HIV1
IT **Antiviral** agents
Human immunodeficiency virus 1
(**HIV**-1 integrase inhibitor chicoric acid improves in vitro anti-**HIV**-1 effect of Zidovudine plus protease inhibitor AG1350)
IT Drug interactions
(additive; **HIV**-1 integrase inhibitor chicoric acid improves in vitro anti-**HIV**-1 effect of Zidovudine plus protease inhibitor AG1350)
IT 30516-87-1, Zidovudine **70831-56-0**, l-Chicoric acid
217817-99-7, AG 1350
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**HIV**-1 integrase inhibitor chicoric acid improves in vitro anti-**HIV**-1 effect of Zidovudine plus protease inhibitor AG1350)
IT 52350-85-3, Integrase 144114-21-6, Retropepsin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**HIV**-1 integrase inhibitor chicoric acid improves in vitro anti-**HIV**-1 effect of Zidovudine plus protease inhibitor AG1350)
RE.CNT 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD
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AN 1998:620304 CAPLUS
DN 129:325768
TI Resistance to the anti-human immunodeficiency virus type 1 compound L-chicoric acid results from a single mutation at amino acid 140 of integrase
AU King, Peter J.; Robinson, E. Edward, Jr.
CS Departments of Microbiology and Molecular Genetics, University of California, Irvine, CA, 92697, USA
SO Journal of Virology (1998), 72(10), 8420-8424
CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English
CC 1-5 (Pharmacology)
Section cross-reference(s): 3
AB L-Chicoric acid is an inhibitor of human immunodeficiency virus type 1 (**HIV**-1) integrase in vitro and of **HIV**-1 replication in tissue culture. Following 3 mo of selection in the presence of increasing concn. of L-chicoric acid, **HIV**-1 was completely resistant to the compd. Introduction of the mutant integrase contg. a single glycine-to-serine amino acid change at position 140 into the native, L-chicoric acid-sensitive virus demonstrated that this change was sufficient to confer resistance to L-chicoric acid. These results confirm through natural selection previous biochem. studies showing that L-chicoric acid inhibits integrase and that the drug is likely to interact at residues near the catalytic triad in the integrase active site.
ST chicoric acid HIV1 resistance integrase mutation
IT Enzyme functional sites
(active, catalytic triad; resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT Drug resistance
(**antiviral**; resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT Mutation
(point; resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT **Antiviral** agents
Human immunodeficiency virus 1
(resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT **Antiviral** agents
(resistance to; resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT **6537-80-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)
IT 52350-85-3, Integrase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(resistance to the anti-**HIV**-1 compd. L-chicoric acid results from a single mutation at amino acid 140 of integrase)

AN 1998:601918 CAPLUS
DN 129:310451
TI Human immunodeficiency virus type 1 cDNA integration: new aromatic hydroxylated inhibitors and studies of the inhibition mechanism
AU Farnet, C. M.; Wang, B.; Hansen, M.; Lipford, J. R.; Zalkow, L.; Robinson, W. E., Jr.; Siegel, J.; Bushman, F.
CS Salk Institute for Biological Studies, La Jolla, CA, 92037, USA
SO Antimicrobial Agents and Chemotherapy (1998), 42(9), 2245-2253
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
CC 1-5 (Pharmacology)
Section cross-reference(s): 7
AB Integration of the **HIV**-1 cDNA is a required step for **viral** replication. Integrase, the virus-encoded enzyme important for integration, was not yet exploited as a target for clin. useful inhibitors. Here we report on the identification of new polyhydroxylated arom. inhibitors of integrase including ellagic acid, purpurogallin, 4,8,12-trioxatricornan, and hypericin, the last of which is known to inhibit **viral** replication. These compds. and others were characterized in assays with subviral preintegration complexes (PICs) isolated from **HIV**-1-infected cells. Hypericin was found to inhibit PIC assays, while the other compds. tested were inactive. Counterscreening of these and other integrase inhibitors against addnl. DNA-modifying enzymes revealed that none of the polyhydroxylated arom. compds. are active against enzymes that do not require metals (methylases, a pox virus topoisomerase). However, all were cross-reactive with metal-requiring enzymes (restriction enzymes, a reverse transcriptase), implicating metal atoms in the inhibitory mechanism. In mechanistic studies, we localized binding of some inhibitors to the catalytic domain of integrase by assaying competition of binding by labeled nucleotides. These findings help elucidate the mechanism of action of the polyhydroxylated arom. inhibitors and provide practical guidance for further inhibitor development.
ST arom hydroxylated inhibitor HIV1 cDNA integrase
IT Anti-AIDS agents
(inhibition activity and mechanism of arom. hydroxylated inhibitors for **HIV**-1 cDNA integration tested on preintegration complexes)
IT cDNA
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibition activity and mechanism of arom. hydroxylated inhibitors for **HIV**-1 cDNA integration tested on preintegration complexes)
IT Aromatic hydrocarbons, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(inhibition activity and mechanism of arom. hydroxylated inhibitors for **HIV**-1 cDNA integration tested on preintegration complexes)
IT 77-08-7 87-66-1, Pyrogallol 117-10-2, Danthron 319-89-1, Tetroquinone 327-97-9, Chlorogenic acid 476-66-4, Ellagic acid 500-38-9, Nordihydroguaiaretic acid 548-04-9, Hypericin 569-77-7, Purpurogallin 577-33-3, Anthrarobin **6537-80-0** 20636-41-3 35582-88-8 69595-67-1 76643-51-1 89919-62-0 91295-26-0 138259-51-5 139565-30-3 139565-35-8 139565-36-9 139565-41-6 139565-42-7 139565-43-8 214707-16-1 214707-18-3 214707-20-7 214707-21-8 214707-22-9
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(inhibition activity and mechanism of arom. hydroxylated inhibitors for **HIV**-1 cDNA integration tested on preintegration complexes)
IT 9068-38-6, Reverse transcriptase 52350-85-3, Integrase 80498-17-5,

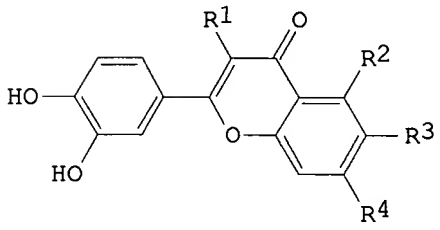
EcoRI 81295-34-3, PvuII 81458-00-6 129553-18-0, CpG methylase
143180-75-0, DNA topoisomerase I
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibition of DNA-modifying enzymes by polyhydrolylated arom. inhibitors of **HIV**-1 integrase)

DN 128:149231
TI Dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of human immunodeficiency virus type 1 integrase
AU Mcdougall, Brenda; King, Peter J.; Wu, Bor Wen; Hostomsky, Zdenek; Reinecke, Manfred G.; Robinson, W. Edward, Jr.
CS Department of Pathology, University of California, Irvine, CA, 92697-4800, USA
SO Antimicrobial Agents and Chemotherapy (1998), 42(1), 140-146
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
CC 1-5 (Pharmacology)
Section cross-reference(s): 7
AB Current pharmacol. agents for human immunodeficiency virus (**HIV**) infection include drugs targeted against **HIV** reverse transcriptase and **HIV** protease. An understudied therapeutic target is **HIV** integrase, an essential enzyme that mediates integration of the **HIV** genome into the host chromosome. The dicaffeoylquinic acids (DCQAs) and the dicaffeoyltartaric acids (DCTAs) have potent activity against **HIV** integrase in vitro and prevent **HIV** replication in tissue culture. However, their specificity against **HIV** integrase in cell culture has been questioned. Thus, the ability of the DCQAs and DCTAs to inhibit binding of **HIV** type 1 (**HIV**-1) gp120 to CD4 and their activities against **HIV**-1 reverse transcriptase and **HIV** RNase H were studied. The DCQAs and DCTAs inhibited **HIV**-1 integrase at concns. between 150 and 840 nM. They inhibited **HIV** replication at concns. between 2 and 12 .mu.M. Their activity against reverse transcriptase ranged from 7 .mu.M to greater than 100 .mu.M. Concns. that inhibited gp120 binding to CD4 exceeded 80 .mu.M. None of the compds. blocked **HIV**-1 RNase H by 50% at concns. exceeding 80 .mu.M. Furthermore, when the effects of the DCTAs on reverse transcription in acutely infected cells were measured, they were found to have no activity. Therefore, the DCQAs and DCTAs exhibit > 10- to > 100-fold specificity for **HIV** integrase, and their activity against integrase in biochem. assays is consistent with their obsd. anti-**HIV** activity in tissue culture. Thus, the DCQAs and DCTAs are a potentially important class of **HIV** inhibitors that act at a site distinct from that of current **HIV** therapeutic agents.
ST HIV1 integrase inhibition dicaffeoylquinate dicaffeoyltartarate
IT **Antiviral** agents
(action mechanism; dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of human immunodeficiency virus type 1 integrase)
IT Human immunodeficiency virus 1
(dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of **HIV**-1 integrase)
IT Anti-AIDS agents
(dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of human immunodeficiency virus type 1 integrase)
IT 2450-53-5, 3,5-Dicaffeoylquinic acid 14534-61-3, 3,4-Dicaffeoylquinic acid 30964-13-7, 1,5-Dicaffeoylquinic acid 57378-72-0, 4,5-Dicaffeoylquinic acid **70831-56-0** 179409-87-1
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors of human immunodeficiency virus type 1 integrase)
IT 52350-85-3, Integrase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(dicaffeoylquinic and dicaffeoyltartaric acids are selective inhibitors

of human immunodeficiency virus type 1 integrase)

AN 1996:393062 CAPLUS
DN 125:104334
TI Inhibitors of **HIV**-1 replication that inhibit **HIV** integrase
AU Robinson, W. Edward, Jr.; Reinecke, Manfred G.; Abdel-Malek, Samia; Jia, Qi; Chow, Samson A.
CS Department Pathology Microbiology Molecular Genetics, University California, Irvine, CA, 92717, USA
SO Proceedings of the National Academy of Sciences of the United States of America (1996), 93(13), 6326-6331
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
CC 1-5 (Pharmacology)
AB **HIV**-1 replication depends on the **viral** enzyme integrase that mediates integration of a DNA copy of the virus into the host cell genome. This enzyme represents a novel target to which **antiviral** agents might be directed. Three compds., 3,5-dicaffeoylquinic acid, 1-methoxyoxalyl-3,5-dicaffeoylquinic acid, and L-chicoric acid, inhibit **HIV**-1 integrase in biochem. assays at concns. ranging from 0.06-0.66 .mu.g/mL; furthermore, these compds. inhibit **HIV**-1 replication in tissue culture at 1-4 .mu.g/mL. The toxic concns. of these compds. are fully 100-fold greater than their **antiviral** concns. These compds. represent a potentially important new class of **antiviral** agents that may contribute to the authors understanding of the mol. mechanisms of **viral** integration. Thus, the dicaffeoylquinic acids are promising leads to new anti-**HIV** therapeutics and offer a significant advance in the search for new **HIV** enzyme targets as they are both specific for **HIV** -1 integrase and active against **HIV**-1 in tissue culture.
ST dicaffeoylquinate HIV1 virus replication integrase inhibitor
IT Virucides and Virustats
(dicaffeoylquinic acids as inhibitors of **HIV**-1 virus replication that inhibit **HIV** integrase)
IT Virus, animal
(human immunodeficiency 1, dicaffeoylquinic acids as inhibitors of **HIV**-1 virus replication that inhibit **HIV** integrase)
IT 2450-53-5, 3,5-Dicaffeoylquinic acid **70831-56-0** 179409-87-1
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dicaffeoylquinic acids as inhibitors of **HIV**-1 virus replication that inhibit **HIV** integrase)
IT 52350-85-3, Integrase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(dicaffeoylquinic acids as inhibitors of **HIV**-1 virus replication that inhibit **HIV** integrase)

AN 1986:101952 CAPLUS
DN 104:101952
TI The caffeoylics as a new family of natural **antiviral** compounds
AU Koenig, B. K.; Dustmann, J. H.
CS Niedersaechsisches Landesinst. Bienenforsch., Celle, D-3100, Fed. Rep. Ger.
SO Naturwissenschaften (1985), 72(12), 659-61
CODEN: NATWAY; ISSN: 0028-1042
DT Journal
LA English
CC 1-3 (Pharmacology)
GI



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AB Avian herpes viruses grown in chicken fibroblast cultures were sensitive to caffeoylics (I; R1, R2, R3 and R4 = H or OH); the degree of sensitivity depended both upon the structure (substituent) and the strains of virus used. Caffeic acid [331-39-5], luteolin (R1 and R3 = H; R2 and R4 = OH) [491-70-3], quercetin (R1, R2, and R4 = OH; R3 = H) [117-39-5], and fisetin (R1 and R4 = OH; R2 and R3 = H) [528-48-3] were all active against the avian herpes viruses tested. Other caffeoylics tested and found to be active are chlorogenic acid [327-97-9], sulfuretin [120-05-8], and mixts. of 3 isochlorogenic acids. Caffeoylic compds. are naturally occurring in propolis (bee glue) and apparently responsible for its **antiviral** activity.

ST caffeoylic avian herpes virus structure

IT Virucides and Virustats
(caffeoylic compds. as, structure in relation to)

IT Virus, animal
(herpes, caffeoylic compds. effect on, structure in relation to)

IT Molecular structure-biological activity relationship
(virucidal, of caffeoylic compds.)

IT 117-39-5 120-05-8 327-97-9 331-39-5 491-70-3 528-48-3 2450-53-5 14534-61-3 57378-72-0 **70831-56-0**
RL: BIOL (Biological study)
(herpes virus inhibition by)

AN 1997:79291 CAPLUS
DN 126:165974
TI HIV-1 protease inhibitors, A review for clinicians
AU Deeks, Steven G.; Smith, Mark; Holodniy, Mark; Kahn, James O.
CS University of California, San Francisco, CA, USA
SO JAMA, the Journal of the American Medical Association (1997), 277(2), 145-153
CODEN: JAMAAP; ISSN: 0098-7484
PB American Medical Association
DT Journal; General Review
LA English
CC 1-0 (Pharmacology)
AB A review with .apprx.59 refs. The clin. care of people infected with human immunodeficiency virus (HIV) has been substantially affected by the introduction of HIV-specific protease inhibitors (PIs). The 4 PIs available are saquinavir mesylate, ritonavir, indinavir sulfate, and **nelfinavir** mesylate. Comparison studies have not been reported; therefore, an assessment of the available data to aid clinicians and patients in choosing appropriate treatment will be presented. A systematic review of peer-reviewed publications, abstrs. from national and international conferences, and product registration information through Sept. 1996. Criteria used to select studies include their relevance to PIs, having been published in the English language, and pertinence for clinicians. Data quality and validity included the venue of the publication and relevance to clin. care. Oral administration of ritonavir, indinavir, or **nelfinavir** generates sustainable drug serum levels to effectively inhibit the protease enzyme; however, saquinavir may not generate sustained levels necessary to inhibit the protease enzyme. Patients treated with ritonavir, indinavir, or **nelfinavir** experience similar redns. in viral load and increases in CD4+ lymphocytes; smaller effects occur among those treated with saquinavir. Two randomized placebo-controlled studies conducted among patients with severe immune system suppression and substantial zidovudine treatment experience demonstrated reduced HIV disease progression and reduced mortality with PI treatment. Genotypic resistance to PIs occurs; the clin. relevance of resistance is unclear. The costs of these agents including required monitoring impose new and substantial costs. The PIs have emerged as crit. drugs for people with HIV infection. Optimal use involves combination with reverse transcriptase inhibitors. Resistance develops to each agent, and cross-resistance is likely. These agents must be used at full doses with attention to ensuring patient compliance. The expense of these agents may be offset by forestalling disease progression and death and returning people to productive life. Selecting the initial PI must be individualized, and factors to consider include proven activity, possible toxicities, dosing regimens, drug interactions, and costs.
ST review HIV1 protease inhibitor
IT Human immunodeficiency virus 1
(HIV-1 protease inhibitors, A review for clinicians in humans)
IT 37205-61-1, Proteinase inhibitor
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(HIV-1 protease inhibitors, A review for clinicians in humans)

=>

AN 1987:131292 CAPLUS
DN 106:131292
TI Cellular metabolism of 2',3'-**dideoxycytidine**, a compound active against human immunodeficiency virus in vitro
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SO J. Biol. Chem. (1987), 262(3), 988-91
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
CC 1-5 (Pharmacology)
AB The nucleoside analog 2',3'-**dideoxycytidine** (ddCyd) [7481-89-2] has been shown to inhibit the infectivity and cytopathic effect of human immunodeficiency virus on human OKT4+ lymphocytes in vitro. Metab. of ddCyd by human T-lymphoblastic cells (Molt 4) neg. for human immunodeficiency virus and OKT4 was examd. Molt 4 cells accumulated ddCyd and its phosphorylated derivs. into acid sol. and acid-insol. material in a dose-dependent manner. For each concn. tested, 2',3'-**dideoxycytidine** triphosphate [66004-77-1] represented 40% of the total acid-sol. pool of ddCyd metabolites. Uptake of 5 .mu.M ddCyd was linear for 4 h after addn. of drug. Efflux of ddCyd metabolites from cells followed a biphasic course with an initial retention half-life of 2.6 h for 2',3'-**dideoxycytidine** triphosphate. DNA, but not RNA, of cells incubated with [3H]ddCyd became radiolabeled. Nuclease and phosphatase treatment of DNA followed by reverse-phase HPLC showed that the nucleoside was incorporated into DNA in its original form. DdCyd was not susceptible to deamination by human deoxycytidine deaminase [37259-56-6]. It was a poor substrate for human cytoplasmic and mitochondrial dCyd kinase [9039-45-6], with KM values of 180 and 120 .mu.M, resp. DNA polymerase [9012-90-2] .alpha., .beta., and .gamma. varied in their sensitivities to inhibition by ddCTP with Ki values of 110, 2.6, and 0.016 .mu.M, resp.; however, inhibition was competitive with dCTP in each case.
ST **dideoxycytidine** metab lymphoblast; immunodeficiency virus **dideoxycytidine** cellular metab
IT Deoxyribonucleic acid formation
Ribonucleic acid formation
(**dideoxycytidine** incorporation into, of human T-lymphoblastic cells)
IT Lymphoblast
(T-, **dideoxycytidine** metab. by human)
IT 37259-56-6
RL: BIOL (Biological study)
(**dideoxycytidine** deamination response to human)
IT 9039-45-6
RL: BIOL (Biological study)
(**dideoxycytidine** phosphorylation by, of human)
IT 66004-77-1 104086-75-1 104086-76-2
RL: FORM (Formation, nonpreparative)
(formation of, as **dideoxycytidine** metabolite in human T-lymphoblastic cells)
IT 9012-90-2, DNA polymerase
RL: BIOL (Biological study)
(inhibition of human, by **dideoxycytidine**)
IT 7481-89-2, 2',3'-**Dideoxycytidine**
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(metab. of, by human T-lymphoblastic cells)

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